STATE OF UTAH GENERAL OUTLOOK
Feb 1, 2004

SUMMARY

Last month it was superlatives, gushing euphoria and general optimism that we had a real chance of having a banner snowpack year. This month it is back to reality. January snowpacks were 120% to 140% of normal with almost half of that snowpack accumulated over the Christmas-New Years time frame. High pressure moved in and essentially shut off the snow. In fact, January accumulated just 39% to 60% of average snow increases with most of that happening in the first few days of the month. The result is snowpacks that are near average across the state with the exception of the Virgin – Escalante area which is at 79% of average. Even though snowpacks have declined 20% to 30% relative to last month, they are still 150% to 200% greater than last year. Average looks pretty good compared to the 30% to 50% of normal last year. Precipitation for January was much below average state wide, ranging from 48% to 65% of average, bringing seasonal precipitation, (Oct-Jan) to 94%. Soil moisture remains a concern as there was very little precipitation accumulation prior to the onset of snowpacks. This condition will persist until the melt season saturates the soils and in some cases, could take an above normal amount of snow. Soil moisture deficits range from 6 to 9 inches in the upper 24 inches of soil, similar to last year. Low reservoir storage is also a concern with total reservoir storage down 8% (428,000 AF) from last year. 428,000 AF would be the entire reservoir capacity of the Sevier River Basin and then some. Areas of greatest concern are the Bear and Sevier River basins with current storage of 3% and 21% respectively. Streamflow forecasts are scattered across the spectrum, ranging from 13% to 122% of average. Surface Water Supply Indexes range from 2% on the Bear River to 59% over the western part of the Uintah Basin.

SNOWPACK

January first snowpacks as measured by the NRCS SNOTEL system range from 78% in southern Utah to 106% on the Utah Lake watershed. The lowest snowpacks are on the Escalante at 65% of average. With just 2 months remaining in the normal snowpack accumulation season, most snowpacks are near normal conditions. Given the soil moisture and reservoir storage deficits, Utah really needs a much above average snowpack year. Given maximum historical snowpack accumulation for February and March, Utah's April 1 snowpack would range between 122% to 166% of normal with only a very small probability that this could occur. Given the minimum accumulation for February and March, our April 1 snowpacks would range between 0% and 80% of normal. The likelihood of this occurrence is also very small.

PRECIPITATION

Mountain precipitation during January was much below average (62%) statewide. In northern Utah precipitation ranged from 55% on the Uintahs to 66% on the Provo. Southern Utah had precipitation values ranging from 48% in the southwest to 63% over the southeast watersheds. This brings the seasonal accumulation (Oct-Jan) to 94% of average statewide.

RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 39% of capacity, up 1% from last month. This is down substantially (8%) from last year indicating heavy use of reservoir storage to make up the streamflow deficit. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible.

STREAMFLOW

Snowmelt streamflows are expected to be much below to near average across the entire state of Utah this year. Forecast streamflows range from 13% on the Bear at Stewart dam to 122% on Wheeler Creek. Most flows are forecast to be in the 60% to 90% range. Overall water supply conditions are below to near normal.